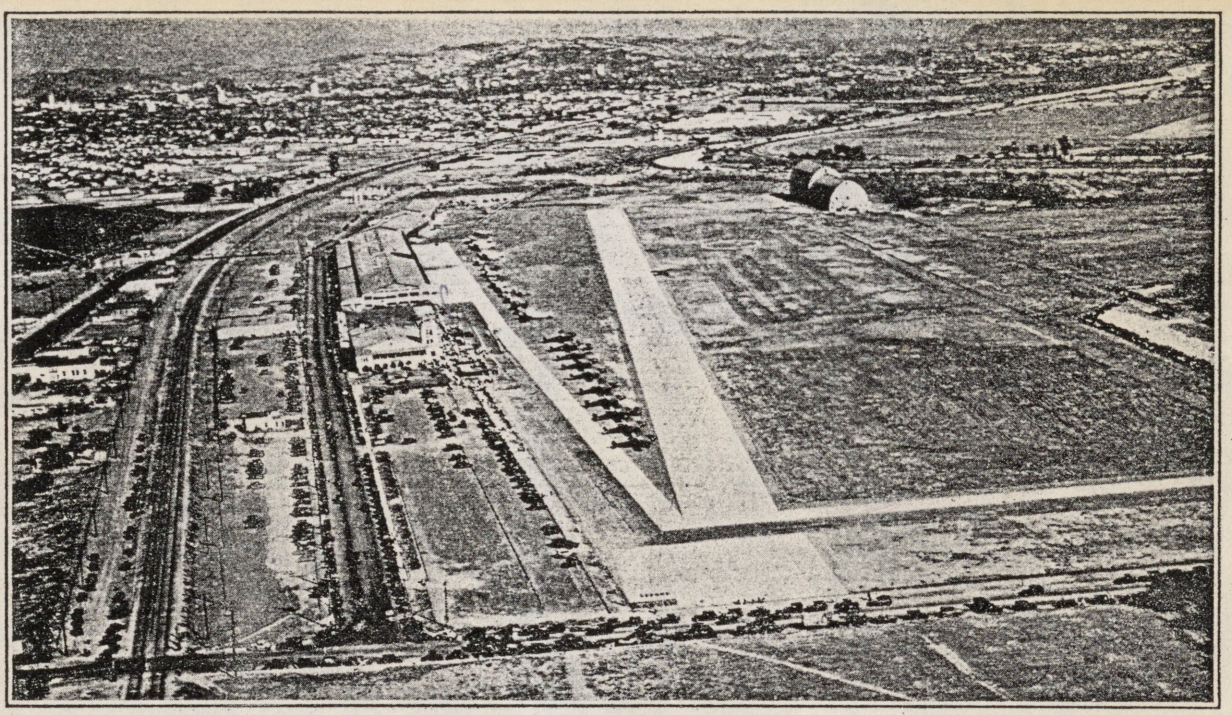

AIRPLANE VIEW OF GRAND CENTRAL AIRPORT

CURTISS-WRIGHT FLYING SERVICE

NATIONAL COMMERCIAL FLYING, SCHOOL, SALES AND SERVICE

World's
Oldest Flying Organization

A DIVISION OF
CURTISS-WRIGHT CORPORATION

GRAND CENTRAL AIR TERMINAL
1224 AIRWAY
GLENDALE, CALIFORNIA

LOS ANGELES PHONE—CAPITOL 6111
GLENDALE PHONE—DOUGLAS 8153

1932

We are training our students for the ideas they will need for tomorrow and not for what we did yesterday

KNOWLEDGE IS POWER

Vocational Education Will Increase Your Earnings

Preface

The Curtiss-Wright Training Department is located in hangar number one at the Grand Central Air Port, which is a Curtiss-Wright port. The map to be found on the back cover indicates how it may be reached over the various highways.

Living conditions for the student are excellent, as all classes can find exactly what they desire. Close-by will be found Burbank, Glendale and Hollywood. It is but twenty miles to the ocean. A well-known fact is that the cost of living in and around Los Angeles is a little lower than elsewhere in the United States.

The weather conditions are so excellent at all times that it is the most ideal place to learn to fly in all the world. Refer to the schedule of arrivals and departures, which shows at a glance the activity of our port.

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Opportunities in Aviation

GROUND OPERATIONS

Engine Mechanic
Airplane Mechanic
Maintenance Superintendent
Inspector, Ground Subjects
Airport Manager
Traffic Agent
Airport Engineer
Aeronautical Engineer
Research Engineer
Airway Positions and Mechanicians
Airway Keepers, Traffic Supervisors, Weather Observers, and Radio Operators
Airport Ground Man, Helper
Welder, Woodworker, Metalsmith, etc.
Instrument Repair Man
Instructing

FLYING OPERATIONS

Pilot—Scheduled mail, passenger and express, aerial taxi service, sight-seeing, and miscellaneous operations
Government Pilot—Inspector, etc.
Aircraft Salesman—Demonstrator
Instructor—Training School
Test Pilot—Aircraft Factory
Aerial Photographer
Radio Operator
Steward

BUSINESS PHASE

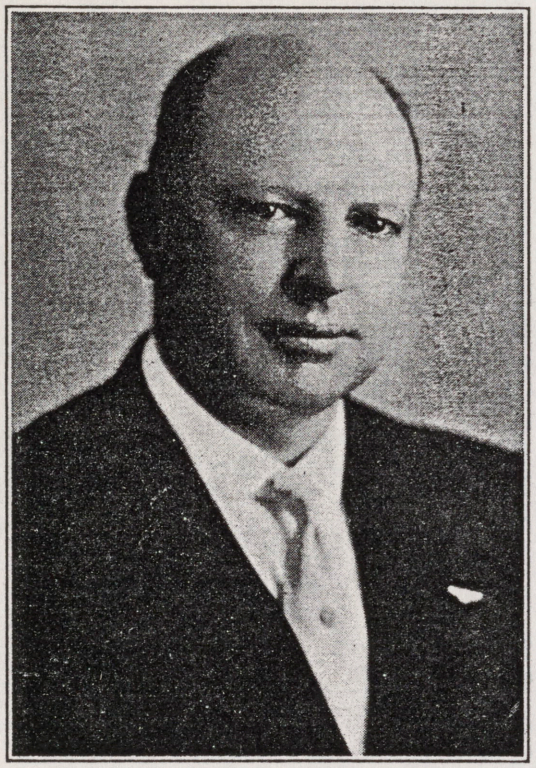
Accessories and parts sales
Aerial photography and surveying
Aircraft sales and distribution
Aerial advertising and promotion
Airport development and management
Insurance Experts
Factory and Office Executives
Lighting Specialists

The Future of Aeronautics

By C. C. MOSELEY, *Manager Los Angeles Base*

Aviation is not the coming thing, it is here with us right now. It is sponsored and believed in by capital and business men of sound judgment. Air mail is a necessity and we can no longer do without it. Air passenger travel by individuals and air transport is next. The industry, although relatively new, is progressing satisfactorily and more rapidly than is generally believed. Aviation is in better condition than many of the old, long-established industries.

There is a sound economic reason for air transportation and when developed along sound lines by experienced, trained personnel, is bound to succeed.



Our Training Policy

By JNO. GEO. MILLER, *Director of Training*

The importance of the Aeronautical Industry and the increasing need for a systematic training program is why The Curtiss-Wright Flying Service, "The World's Oldest Flying Organization," is interested in making a real contribution in the educational field.

The scope of the training courses should be considered as tentative only. In this field of vocational education the maintenance and operation of airplanes has been more or less based on experimentation methods; this is due to the fact that the industry has developed very rapidly during the past few years.

The Federal Board for Vocational Education and also the California State Board of Education have been very helpful in assisting us with the proper establishment of an approved trade training program. The cooperation of the Department of Commerce, Aeronautics Branch, is also greatly appreciated.

Some of our objectives are along the following lines: All jobs are "real" jobs, jobs for which the student can see a reason. The related technical work is on the same basis, that is, taught at a time that it applies to the job and not put in cold storage. Students learn a trade and not about a trade.

Our faculty is made up entirely of experts and leaders in their special lines. They qualify with proper license from the Department of Commerce. We are training the teachers of the state public school system for the teaching of aeronautics. We emphasize the trade extension training program, as well as the pre-employment training for those who wish to enter the occupation. The working conditions are very favorable, making it possible to do an excellent job of training. Our students are in constant contact with all the general activity of a large airport. The mainentence of our own flying equipment is our own measuring stick for a certificate of completion which is issued at the conclusion of each course.

How to Enter the Industry

By B. J. BUSCH, *Sales Mgr., Los Angeles Base*

The average layman hardly appreciates that the aeronautical industry requires trained men of various types just like any other business of the world.

When people think of aeronautics, they visualize a ship and the pilot in the air, yet statistics show that it takes forty highly trained men to keep that ship and pilot in the air. Unless a man is properly trained he does not belong in the industry as he increases the hazard of flying.

There are no short cuts to success in this business any more than there are in other business. However, the industry is so young that the properly trained man of today is fast replacing the haphazardly trained man of yesterday.

The industry today may be divided into three groups, each of which is a business in itself.

1—The manufacture of equipment both for commercial and military uses.
2—Airline operations both passenger and mail.
3—Distribution of commercial equipment and the rendering of service in connection therewith.

Each one of the above is confronted with the problem of properly trained personnel. Each requires a staff of employes, the same as any other business but these employes must know the aeronautical language otherwise they become a liability and soon are replaced.

Enter the industry by training for it. The training you require depends on your previous business background. Take your training with a nationally known and established institution. It will give you the best there is and prepare you for the best. Let a Curtiss-Wright trained man help analyze your background and recommend the type of training you need. Curtiss-Wright trained men are dependable and in demand by all three of the above groups.

Our Students Are Given Exceptional Instruction

There is a Great Future for Aviation Students

Take Advantage of Our Financial Plan and Get Curtiss-Wright Training

There are Opportunities in Aviation for Trained Men and Women

Certificate of Completion

GRANTED BY THE

CURTISS-WRIGHT FLYING SERVICE

AT THE LOS ANGELES BASE

This is to Certify that _____

has completed the _____ *course as detailed below:*

Issued this _____ *day of* _____ *193*____

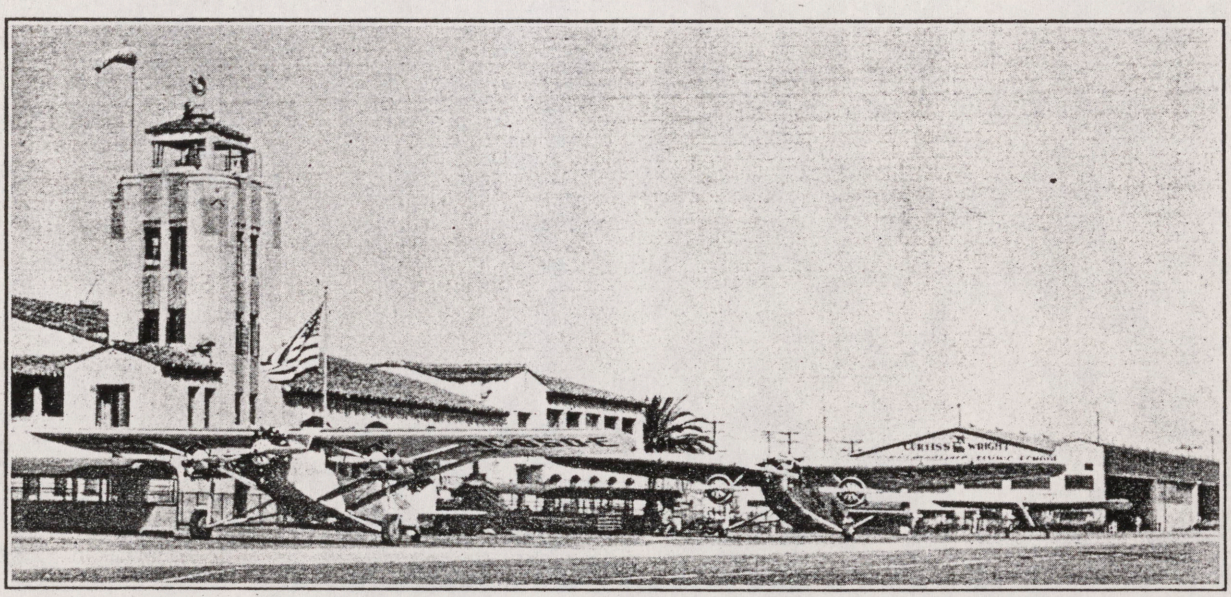
Signed by _____ _____ _____

Base Manager — *Chief Instructor* — *Director of Training*

CURTISS-WRIGHT TRAINING DEPARTMENT CERTIFICATE OF GRADUATION

THE MAJOR NUMBER OF CURTISS-WRIGHT APPROVED SCHOOL GRADUATES ARE ALREADY EMPLOYED AS PILOTS OR IN BUSINESS FOR THEMSELVES

During the first six months of 1931 we have placed with major manufacturers and transport lines 82 per cent of Curtiss-Wright mechanics school graduates, and are having further demands for recommended graduates. If you are sincere regarding your future and enrol with the definite purpose of applying yourself while in our school, we can assure you of material help in securing employment upon completion of your course. The demand for Curtiss-Wright recommended mechanics far exceeds the number trained. We are very proud of these facts.



GRAND CENTRAL AIR TERMINAL WHERE A SCHEDULED AIR LINER LEAVES EVERY FEW MINUTES NORTH, EAST, AND SOUTH

Aviation Mechanics are Necessary the Same as Auto Mechanics

Our Records Demonstrate Curtiss-Wright Men are Dependable

Learn to Fly Under the Best of Instructors

Pilots Trained by us Are Dependable Fliers

tional Guard; Chief of Maintenance, Aviation Division, Charles R. Rogers Production Company; Crown Aircraft Corporation; Airplane Mechanic with Curtiss-Wright.

HARRY J. FORSYTH
Engine Instructor
Department of Commerce Airplane and Engine Mechanic's License No. 4250

Electrical Engineering; Apprentice Machinist; Instructor Engines and Airplanes, Cornell University; Assistant to Chief Engineering Officer, Long Island; Curtiss Company Experimental Department; Manager, Washington, Oregon, and Idaho Airplane Company; Superintendent, Adcox Automobile School; Instructor, Bensen Polytechnic; Mechanic for Ruth Law; Automobile and Motorcycle Business, Garage, and Racing; Factory Superintendent for Fageol and International Machine Company.

WILLIAM A. GASTON
Instructor Drafting, Metal and Welding

Public School Education; Owned Bicycle and Motorcycle Repair Shop; Auto Repair Business as Mechanic and Foreman; Standard Aircraft Corporation; Douglas Aircraft Company; Lockheed Aircraft Company; Northrop Aircraft Company.

GLEN A. POTTER
Line and Hangar Instructor

High School; College Business Course; Steam Engineering; Automobile Factory; Gas Engine Building and Experimenting; Automobile Body Building and Upholstering; Factory Road Engineer on Automobiles and Trucks; Garage service Superintendent; Pilot, Airplane and Engine Mechanic; Department of Commerce, Airplane and Engine Mechanic's License.

WILLARD I. STAPLES
Teacher Training Instructor
Airplane and Engine Mechanic's License D. C. No. 5390
Pilot's License L. C. No. 15298
Instructor's License D. C. No. 288

High School; Graduate, Teachers' Training University of California at Los Angeles; Special Course in Education, University of California, Berkeley, and University of California at Los Angeles; Garage Mechanic and Foreman; Machine and Auto Shop Instructor; In charge of giving Vocational Teachers' Examination in Aeronautics for the California State Board of Education.

TOM H. WITHAM
General Mechanic and Instructor of Finishing
Airplane and Engine Mechanic's License D. C. No. 6288

Public School; R. F. C. Training School; with Glen Curtiss in 1909; Overseas with R. F. C.; Air Technician for Fox Film Corporation; Air Mechanic for First National, Columbia, and Universal Pictures; Chief Mechanic, Aero Aircraft.

Teacher Training

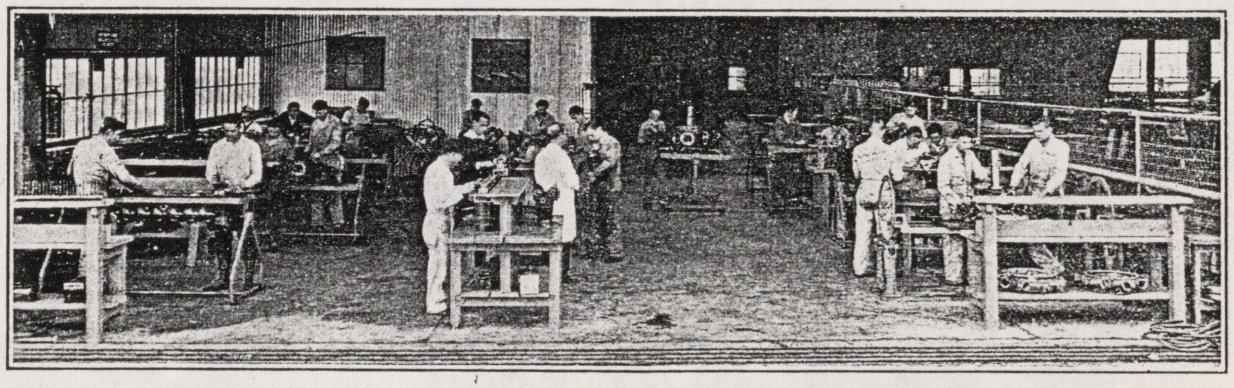
Prepare Yourself to Teach Airplane Mechanics or Airplane Engine Mechanics—the Next Step in Vocational or Industrial Arts Education

The Curtiss-Wright Training Department is approved by the State Department of Education to give instruction in Aeronautical courses and such work completed may be accepted by the State Department of Education toward certification in accordance with state standards or through Santa Barbara State Teachers' College.

The same basis for credit hours as other State College requirements.

The Division of Vocational Teacher Training of the University of California at Los Angeles holds the annual trade test for credentials in aeronautics in our training department, and also use our instructors for examiners.

Twenty dollars per unit of 45 hours each. Laboratory and lecture.



ENGINE OVERHAUL DEPARTMENT

INSTRUCTIONAL STAFF

TOP ROW, LEFT TO RIGHT: MESSRS. TOM WHITAM, H. B. BATSON, W. A. GASTON, W. A. HAMMOND, W. I. STAPLES, FLOYD ADAMS, GLEN L. POTTER, H. J. FORSYTHE

LOWER ROW: MESSRS. NATHAN MORSE, JNO. GEO. MILLER, DEAN OF SCHOOL; AND C. C. MOSELEY, MANAGER OF LOS ANGELES BASE

Training Department Personnel

JNO. GEO. MILLER
Director of Training

Mechanical Engineer Degree; Master's Degree Mechanical Engineering; Special Courses in Education, University of California; Emergency Fleet Training under Charles R. Allen; Apprentice Ship Training; Power House Engineering; Construction Engineering; Civil Service, Philippine Islands; World Travel; Director of Mechanic Arts, Texas State Teachers' College and Long Beach Polytechnic High School; Staff Instructor, Emergency Fleet; Venice Polytechnic High School Department Head; Supervisor Vocational Teacher Training, University of California at Los Angeles; Principal, Frank Wiggins Trade Evening School, Los Angeles.

WILBUR A. HAMMOND
Chief Instructor

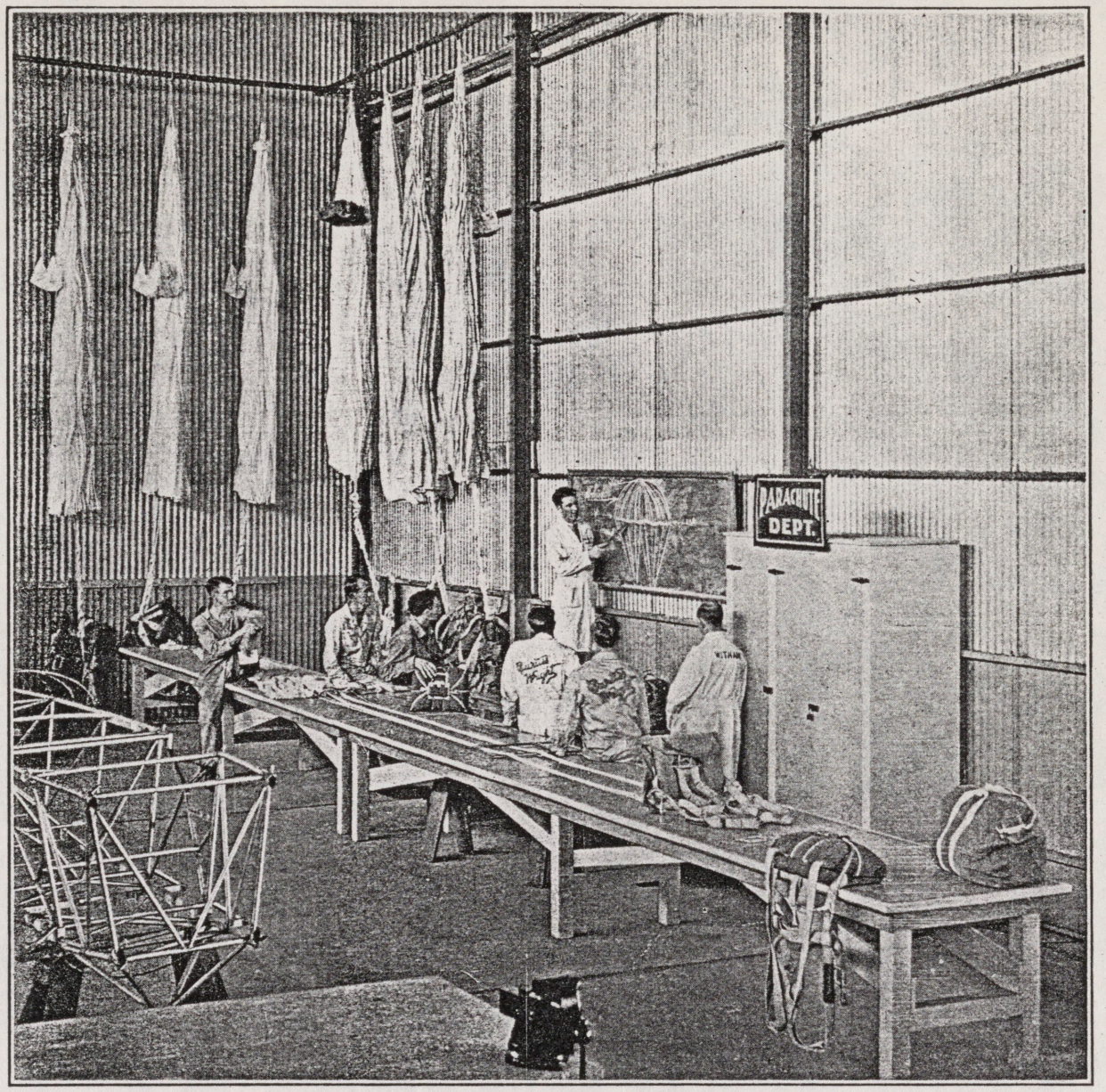
High School Mechanical Training; University Mining Engineering; Army Mechanics' Training School, Rockwell Field; Training and qualified as pilot, Rockwell Field; United States Army, enlisted service, Engineering Corps, enlisted service, Signal Corps, Air Service Branch; Commissioned officer in charge Mechanics' Training Air Service Unit No. 1, Wilbur Wright Field; Selfridge Field; Carnegie Institute of Technology; A. S. M. T. S. St. Paul, Minnesota; Pilot and own mechanical work (Flying Circus); Service Manager, Studebaker Distributor, Minnesota, Dakota and Montana; Air Service (flying and repairs) Minneapolis, Minnesota; Aeronautics Teacher, Los Angeles Public Schools; Member California State Board of Examiners for Teachers' Credentials in Aeronautics; Licensed Instructor, Department of Commerce.

FLOYD ADAMS
Instructor in Instruments

United States Navy; Warren School of Aeronautics; Western Aviation College; Pacific Scientific Company; Boeing Air Transport.

HENRY B. BATSON
Instructor Airplane Department
Mechanic's License No. 713

Public School Training; Steam Engineering; Auto Mechanics; United States Army Air Service; Civil Service, Rockwell Field, U. S. Army Air Service; Airplane Mechanic, California Na-



GOVERNMENT LICENSED PARACHUTE PACKER NO. 24 AND HIS CLASS

Parachute Riggers' Course

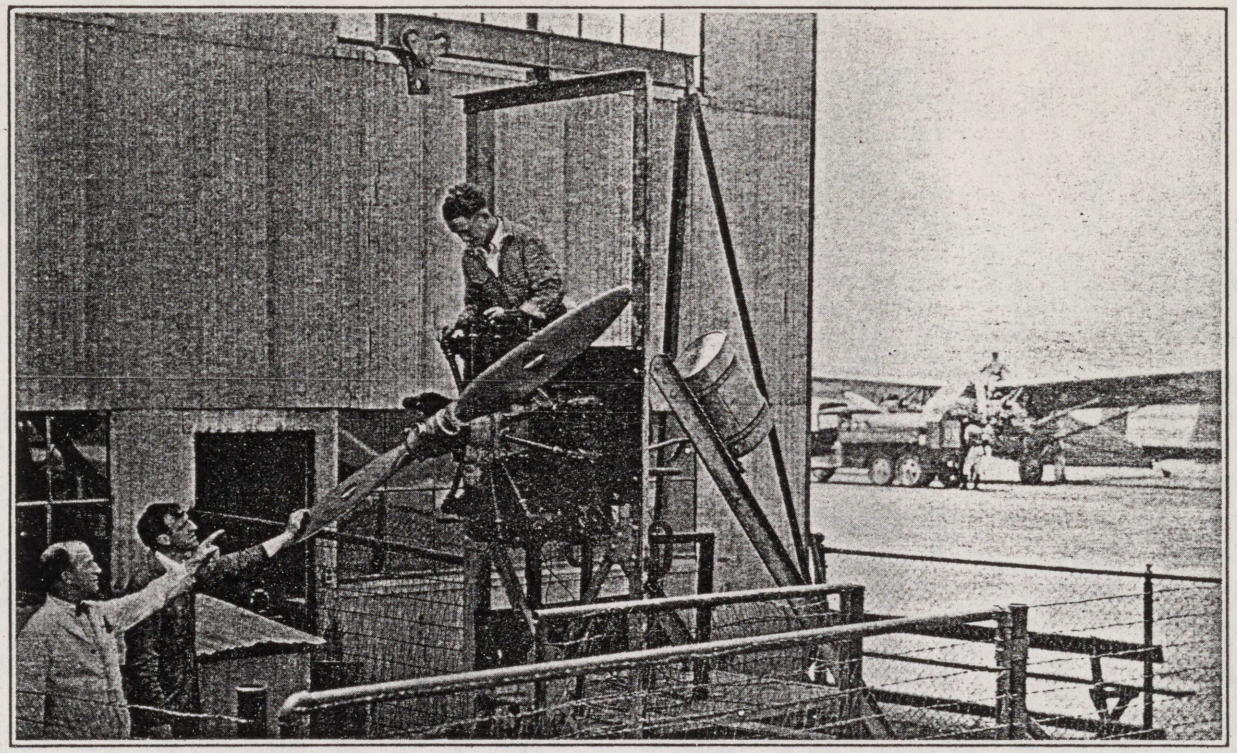
$500

(240 Hours of Instruction)

On completion, a Department of Commerce Riggers' license is guaranteed.

1. Inspection
2. Maintenance
3. Repair
4. Strength standards
5. Specifications and material
6. Packing
7. Handling
8. Care
9. Construction of pack
10. Air commerce regulations
11. Use of table for Department of Commerce tests
12. Use of packing tools
13. Use of repair equipment
14. Instructions on drop test
15. Twenty drop tests from airplane with 170-pound dummy

In no other branch of work is a thorough knowledge and training as essential to safety as when packing parachutes. Our instructors have had years of successful experience both with military and commercial organizations. Better instruction cannot be had.



THE PROOF OF THE PUDDING IS IN THE EATING—EACH MOTOR WHEN REBUILT IS GIVEN A THOROUGH BLOCK TEST

Aircraft Companies at Grand Central

Receive your training at Los Angeles' greatest airport: the home of Transcontinental and Western Air Inc., Century Pacific Airlines Ltd., Gilpin Airlines, Kinner Motor Company field service, H. C. Lippiatt Aircraft distributor, Ruckstell Aircraft and Engine Service, Irving Parachute Company, Air Transport Manufacturing Co., and Spillane Aero Supply Co., Varney Air Service, Ltd.

THE AIRPORT WITH ACTIVITY EVERY MINUTE

Our Equipment Is Outstanding

The training department is located at Grand Central Air Terminal in hangar No. 1 which is 130 feet by 200 feet with the mezzanine floor 40 feet by 60 feet. Special departments are sectioned off for the various activities and expert instructors are in each department. Actual production and maintenance of flying equipment is the ultimate aim for every student that completes our master's course. The Curtiss-Wright Port is one that always has been the center of flying activities for this region.

Instruction

Instruction is given three or six hours per day, five days per week, continuously throughout the year.

Night courses from 7 to 10 P. M. are available on Monday, Wednesday and Friday for those employed during daytime hours.

Brief Outline of Courses

Airplane Engine Mechanics' Course

$200

(250 Hours of Instruction)

ENGINES—LECTURES

The four-stroke-cycle principle. Valves and valve gears. Carburetion, ignition, lubrication, engine accessories, trouble shooting, inspection and maintenance. Performance data. Characteristics of different types and flight practices.

ENGINES—LABORATORY

Dissemble, clean, and inspect parts for condition. Clean carbon, replace and reseat valves, fit bearings, install pistons, pins and rings. Repair and assembly of cooling systems. Cleaning out oil ways, overhauling oil pumps and other lubrication system parts. Overhauling and testing ignition and carburetion systems. Clean, adjust, and test spark plugs. Making necessary gaskets, bushings, etc. Assembly of engine. Adjusting valve clearances, timing valves. Timing and synchronizing ignition. Inspection and block test of completed jobs which includes motor and propeller installation, cranking and starting practice, trouble shooting on each motor overhauled. Starters, fuel systems, cooling systems, and other accessories are examined and studied as to their function and structure.

Airplane Mechanics' Course

$200

(250 Hours of Instruction)

AIRPLANES—LECTURES

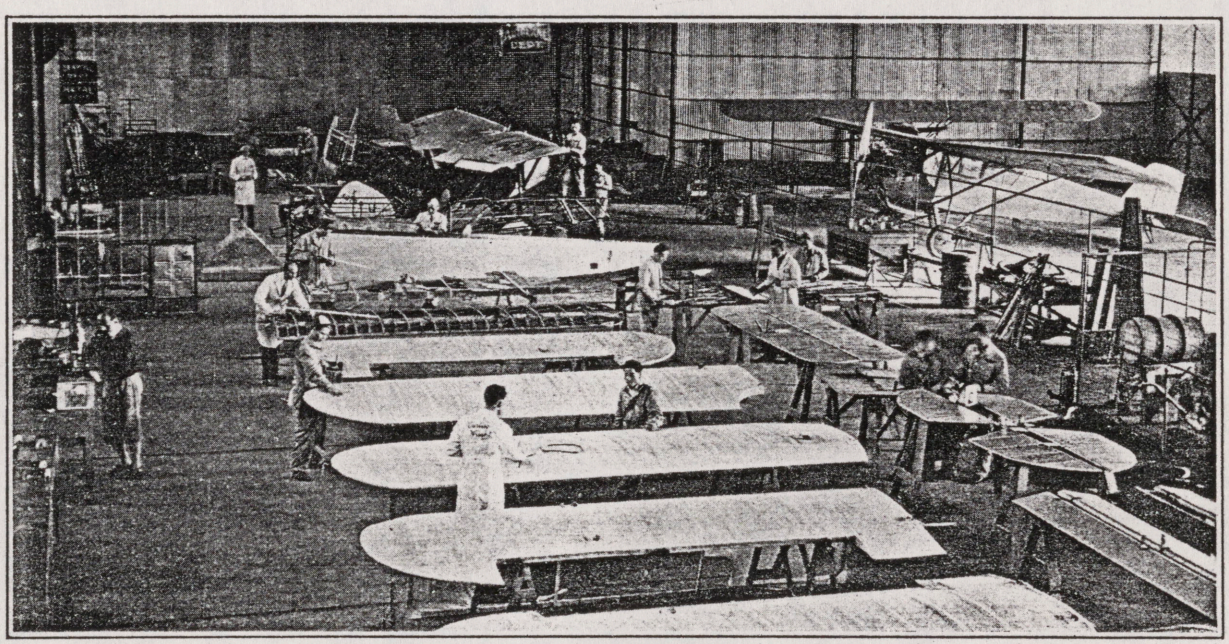
Theory of flight and aerodynamics including: theory, fundamentals, and mechanics relative to lift, drag, thrust, gravity. Laws of air resistance, laws of motion, laws relating to the effect of pressure and temperature upon density. Static and dynamic stability. Aircraft stability in flight. Aircraft control. Flight take-off, landings, climbs, turns, banks, skids, dives, loops, stalls, slips, and spins.

The part that instruments play in flying a ship, air movements, weather reports, landmarks, maps, parachutes and their care, air commerce regulations, air ports, licensing pilots and mechanics, rating of schools, and demand for employes.

AIRPLANES—LABORATORY

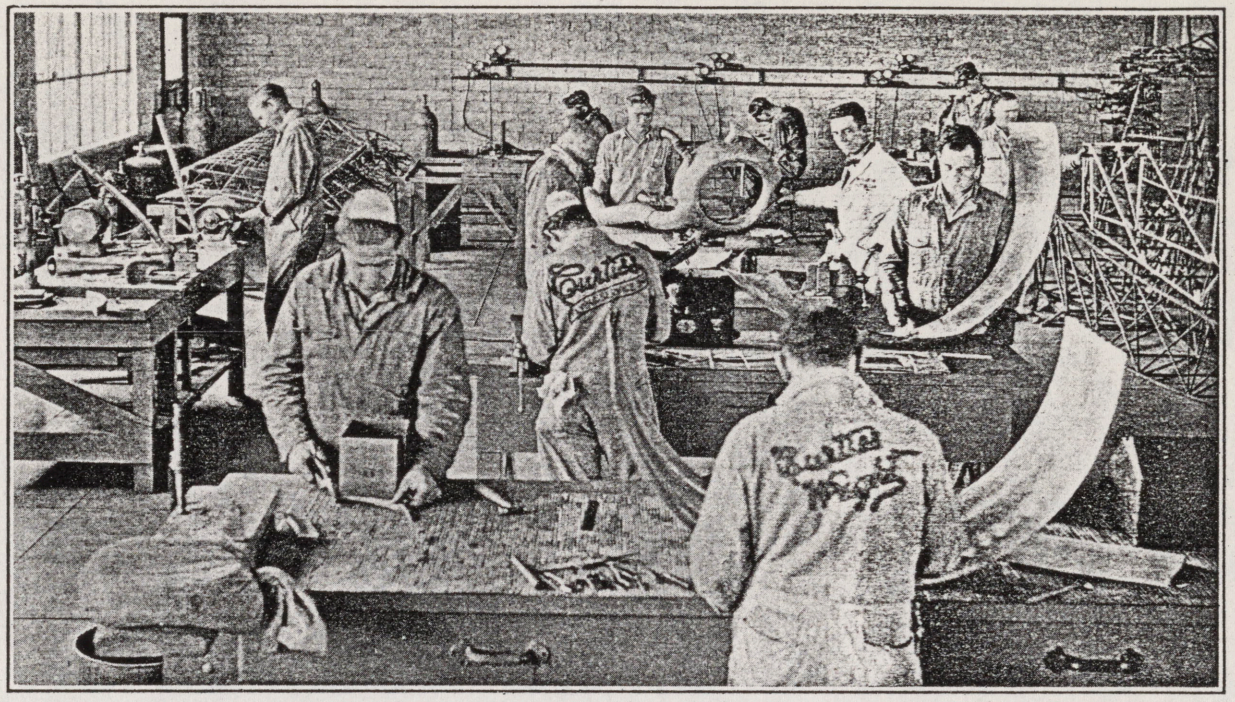
Responsibilities and duties of the airplane mechanic. Inspection of ships, tagging and recording conditions of fittings, wires, cables, fabric, wood, dope, paint, landing gear, wings, fuselage, preliminary to repairs.

Practice and production on the following: sheet metal, welding, steel tubing, aluminum alloys, fabric, dope, finishing material, glue, solder, wire work. Sub and final assembly. Motor installation, rigging, and final inspection for flight.



STUDENTS GETTING PRACTICAL TRAINING IN AIRPLANE WING CONSTRUCTION AND THE ASSEMBLY OF AIRPLANES

Take Advantage of Our Financial Plan and Get Curtiss-Wright Training
There are Opportunities in Aviation for Trained Men and Women
Aviation Mechanics are Necessary the Same as Auto Mechanics
Our Records Demonstrate Curtiss-Wright Men are Dependable



METAL AND WELDING ARE ESSENTIAL TO BUILDING AND REPAIRS

Master Mechanics' Course

$600

(1225 Hours of Instruction, Lecture, Laboratory)

Covering the following:

1. The complete Airplane Mechanics' Course
2. The complete Engine Mechanics' Course

and additional courses in—

3. Electrics
4. Plan reading and drafting
5. Welding
6. Parachute rigging
7. Hangar section
8. Line

Airplane Welding Course

$100

(75 Hours of Instruction)

Covering number two to six tips.

Qualifying students on completion to specialize in airplane welding.

All of our courses are practical. No model equipment is used. In addition to maintaining our own equipment in the school, we do all kinds of minor and major overhaul in our school shop. In other words you are working on aircraft actually engaged in flying.

The present trend towards metal construction in airplanes necessitates a very thorough training in metal construction. The Drafting Department plays quite a part in the training required for metal layouts on fittings, as well as designs and repair specifications for the Department of Commerce inspection on airplane rebuilding.

Aeronautical Engineering Course

$750

(1470 Hours of Instruction)

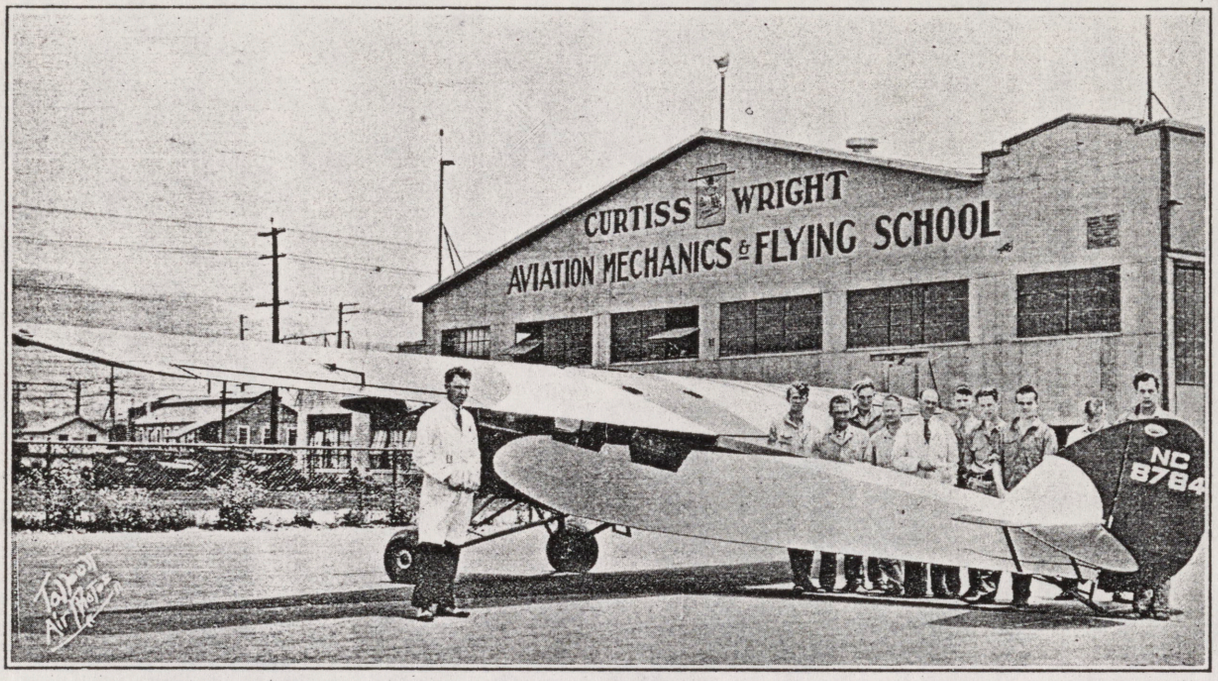
	Hours
Practical aerodynamics	60
Stress analysis and material strengths	180
Airplane design and drafting	720
Economics of aircraft manufacture	60
Visits to Aircraft factories	30
Practical woodwork	120
Practical metal work	120
Assembly and installation	120
Field and line service	60

This course is designed to equip the student with the proper theoretical and practical knowledge of aeronautical engineering problems so he can enter the employ of an airplane manufacturer or an operating company with the confidence which is often lacking in most present-day applicants for such employment.

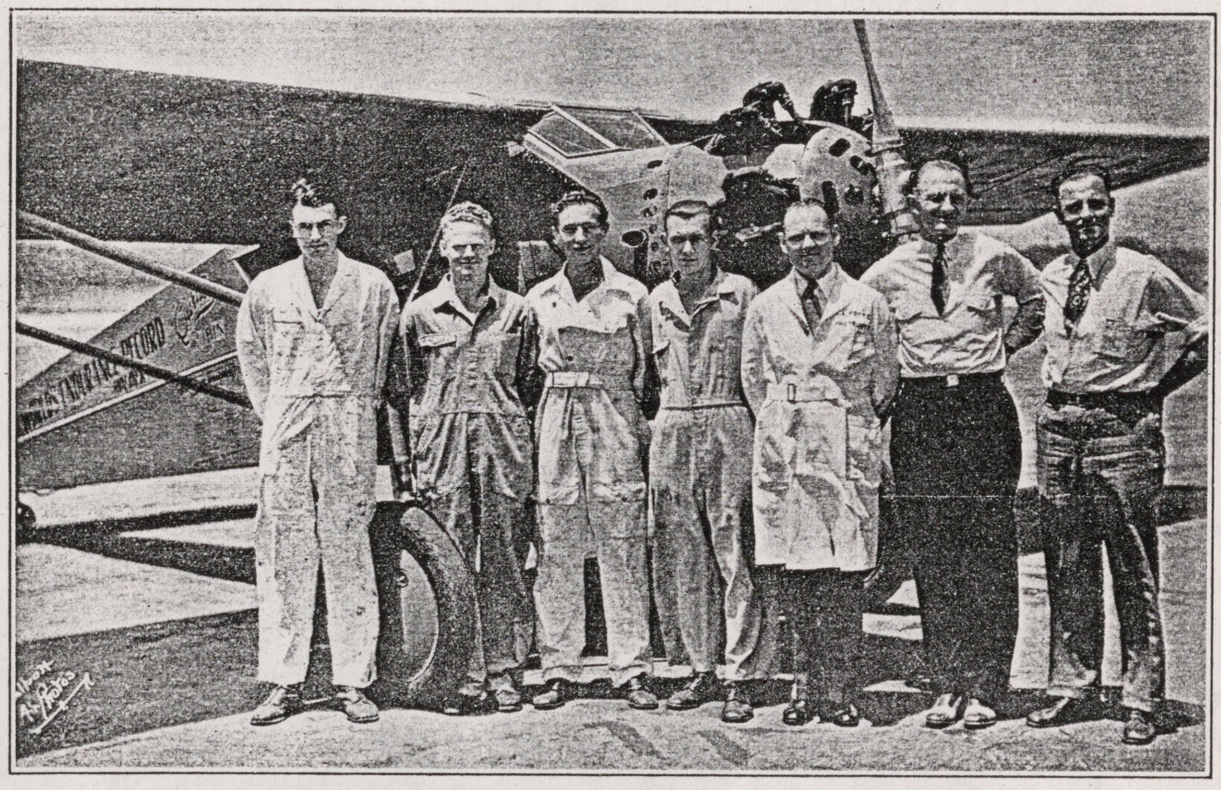
Engineering staffs of the industry are anxiously seeking the engineer properly trained along practical lines.

Line and Hangar Section

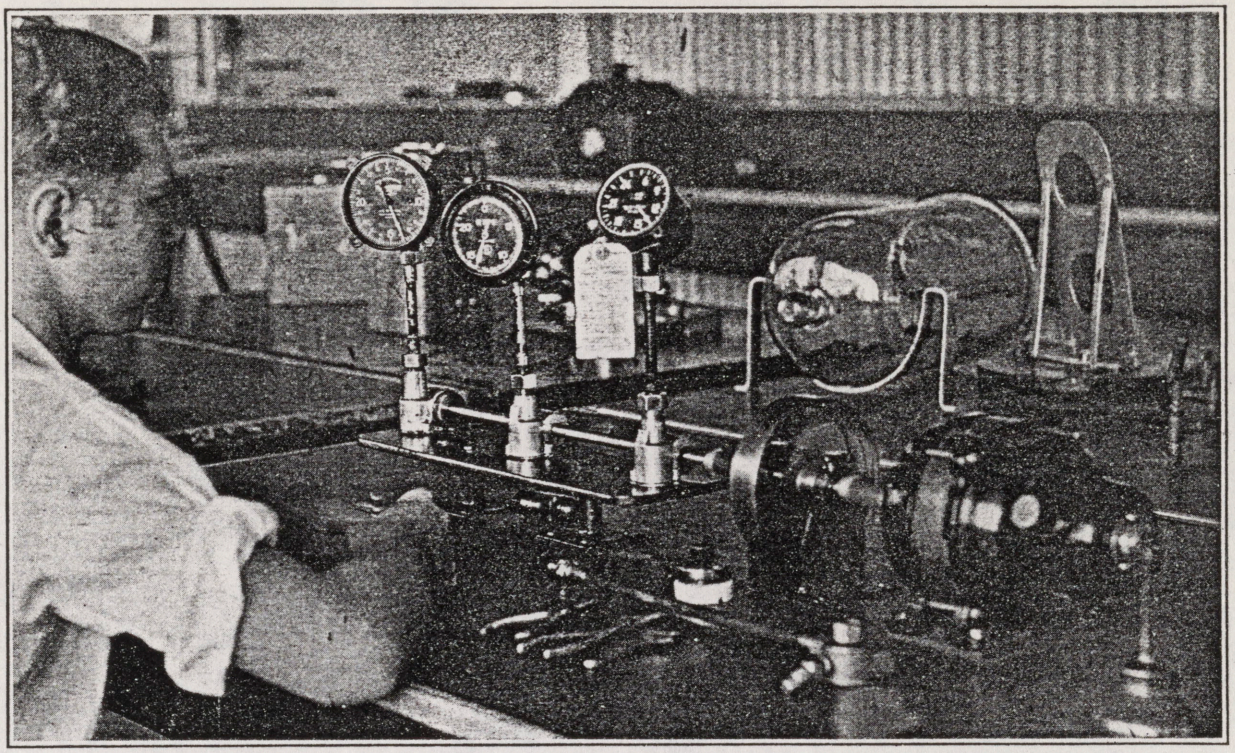
Students who prove their worth in the various departments are gradually advanced to an assignment on the Line. This department has complete charge of all flying equipment for the Curtiss-Wright Flying Service. The time spent in this department is on par with the licensed mechanic.



WARNER POWERED CESSNA MONOPLANE—COMPLETELY REBUILT BY AIRPLANE CONSTRUCTION CLASS FOLLOWING A MAJOR CRACK UP



A GROUP OF ADVANCED STUDENTS AND INSTRUCTORS ON LINE MAINTENANCE



A CORNER IN THE INSTRUMENT LABORATORY

Instrument Specialist Course

$400

(500 Hours of Instruction, Lecture and Laboratory)

Five hundred hours of intensive instruction covering:

1. General mechanical knowledge of engines.
2. General mechanical and structural knowledge of aircraft.
3. Theory of flight.
4. General mechanical knowledge of instrument board.
5. Detailed knowledge of instrument installation.
6. Detailed knowledge of function of each instrument.
7. Detailed knowledge of maintenance of each instrument, such as, servicing, calibrating, compensating, etc.

In this course the student actually engages in flight in order to observe and study the functioning of each instrument.

1. Curtiss-Wright Flying Service is authorized distributor and service representative for Pioneer Aircraft Instruments in Southern California.

2. A recent ruling by the Department of Commerce Aeronautical Branch requires that any transportation company carrying interstate passengers for hire must have in its employ and available a mechanic competent to make test adjustments, and repairs to all aircraft instruments.

3. At this time it is believed that our instrument repair and training department is the only one of its kind in the country training mechanics to fill this pressing need created by the new ruling.

4. The value of a Service Department and school operated conjunctively can be readily appreciated when it is known that a great many plane owners contract their repairs with the understanding that they will be made by closely supervised student mechanics. Such an arrangement gives the students the exceptional opportunity of combining service and repairs with training operations. This plan is unquestionably responsible for the high caliber of mechanics graduated by our school.

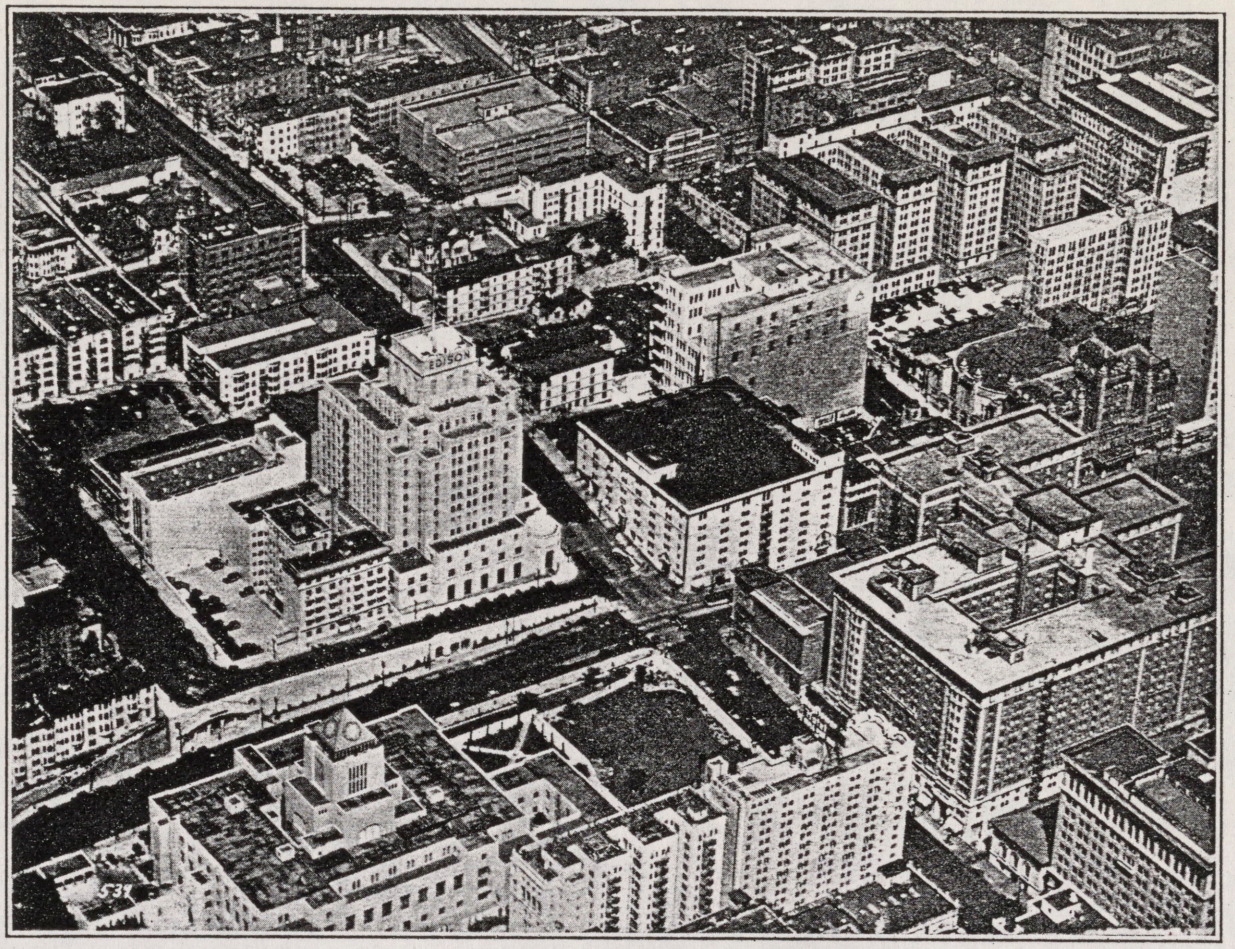
5. Instruments made it possible for Post and Gatty to do accurate flying and make the record they did in circling the globe.

Learn to Fly Under the Best of Instructors

Pilots Trained by us Are Dependable Fliers

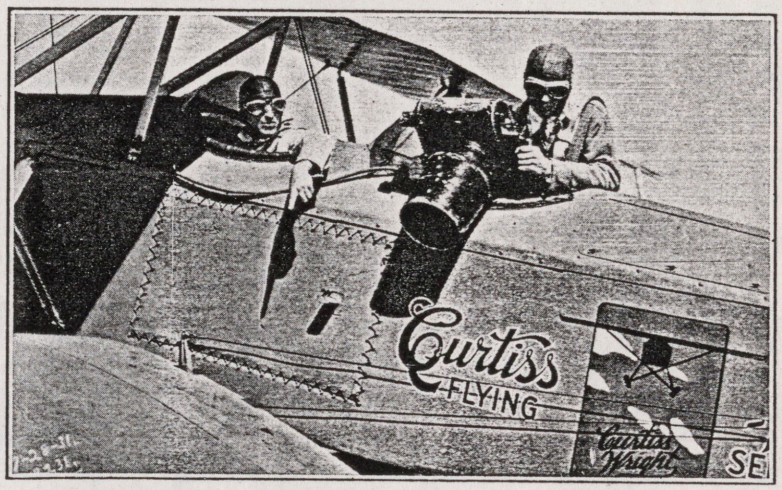
Take Advantage of Our Finance Plan and Get Curtiss-Wright Training

There are Opportunities in Aviation for Trained Men and Women



Top—AERIAL PHOTOGRAPH OF EDISON BUILDING AND VICINITY LOS ANGELES

The above photo is a sample of work done by our Photographic students. It was taken from an altitude of 2000 feet with a special 24-inch lens camera. Curtiss-Wright Flying Service feels fortunate in obtaining the services of Major H. A. Erickson. Major Erickson originally started in Aerial Photographic work with Glenn Curtis at San Diego, California, about 1910, and later gained international fame through filming of a recent polar expedition.



Aviation Mechanics Are Necessary the Same as Auto Mechanics

Our Records Demonstrate Curtiss-Wright Men are Dependable

Aerial Photographic Course

$750

(350 Hours of Instruction, Lectures, Laboratory)

The above course will qualify students in:

Theory	Printing	Air Obliques
Airwork	Developing	Air Maps
Laboratory work	Enlarging	Air Surveys

Tuition includes the use of all materials necessary such as cameras, films, dark room equipment, printers, enlargers, washers, etc., as well as five hours flying time on actual work.

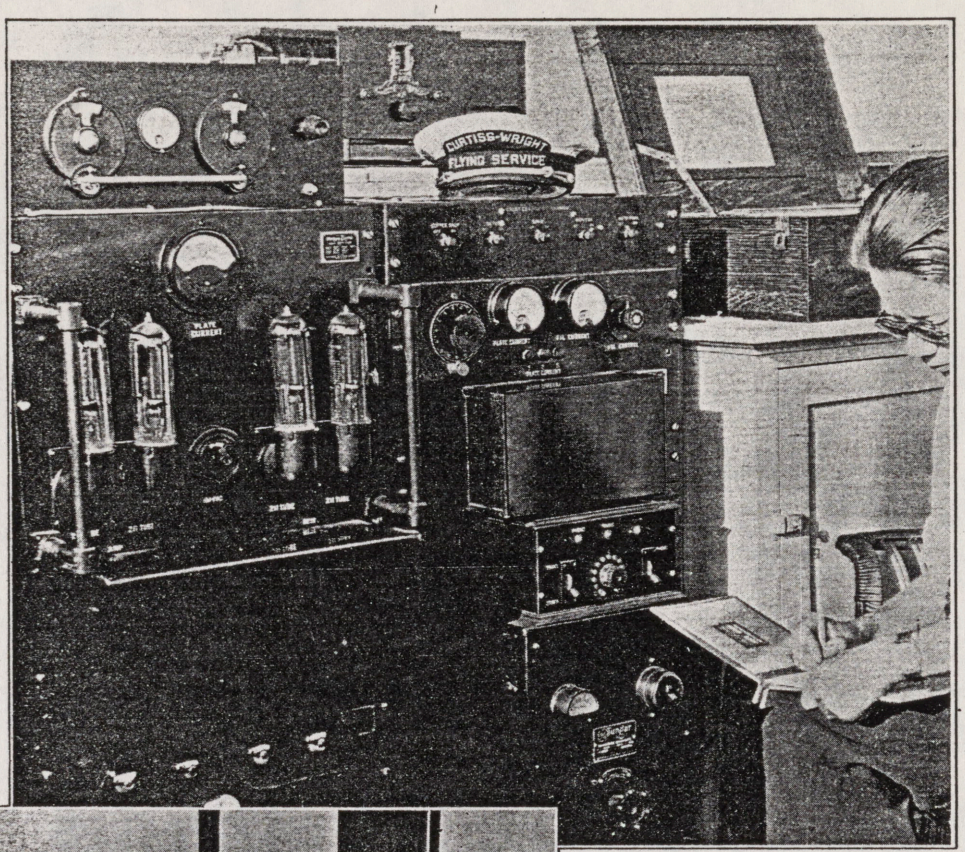
Our Students Are Given Exceptional Instruction

There is a Great Future for Aviation Students

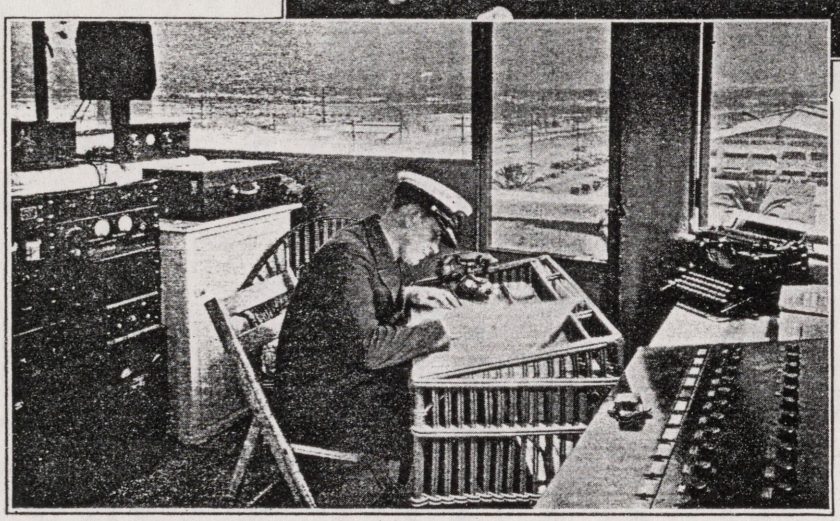
Radio Courses

Nine complete radio telephone and telegraph courses qualifying for the nine Federal licenses.

$50 to $250



BELOW—Grand Central Air Terminal Field Traffic Control Tower—Operated by a Curtiss-Wright trained Operations' Technician.



ABOVE—Traffic control necessitates a thorough knowledge of meteorology and navigation as well as airplanes. All our students, of course, are made thoroughly conversant with these subjects under the tutoring of a Department of Commerce licensed instructor.

GRAND CENTRAL AIR TERMINAL

ARRIVALS

TIME	COMPANY	FROM
8:50 A.M.	Central Pacific	San Diego
8:55 A.M.	Century Pacific	Bakersfield
9:02 A.M.	Transcontinental and Western Air	New York City
9:45 A.M.	Gilpin Air Lines	San Diego
10:40 A.M.	Century Pacific	San Francisco, Oakland, Fresno, Bakersfield
10:50 A.M.	Century Pacific	San Diego
11:40 A.M.	Century Pacific	San Francisco, Oakland, Fresno, Bakersfield
12:50 P.M.	Century Pacific	San Diego
1:00 P.M.	Transcontinental and Western Air	San Francisco
1:40 P.M.	Century Pacific	San Francisco, Oakland, Fresno, Bakersfield
2:50 P.M.	Century Pacific	San Diego
3:15 P.M.	Gilpin Air Lines	San Diego
4:05 P.M.	Century Pacific	San Diego
4:40 P.M.	Century Pacific	San Francisco, Oakland, Fresno, Bakersfield
6:40 P.M.	Century Pacific	San Francisco, Oakland, Fresno, Bakersfield
7:15 P.M.	Gilpin Air Lines	Los Angeles
8:05 P.M.	Century Pacific	San Diego
8:30 P.M.	Transcontinental and Western Air	San Francisco
8:40 P.M.	Century Pacific	San Francisco, Oakland, Fresno, Bakersfield
8:53 P.M.	Transcontinental and Western Air	New York City

DEPARTURES

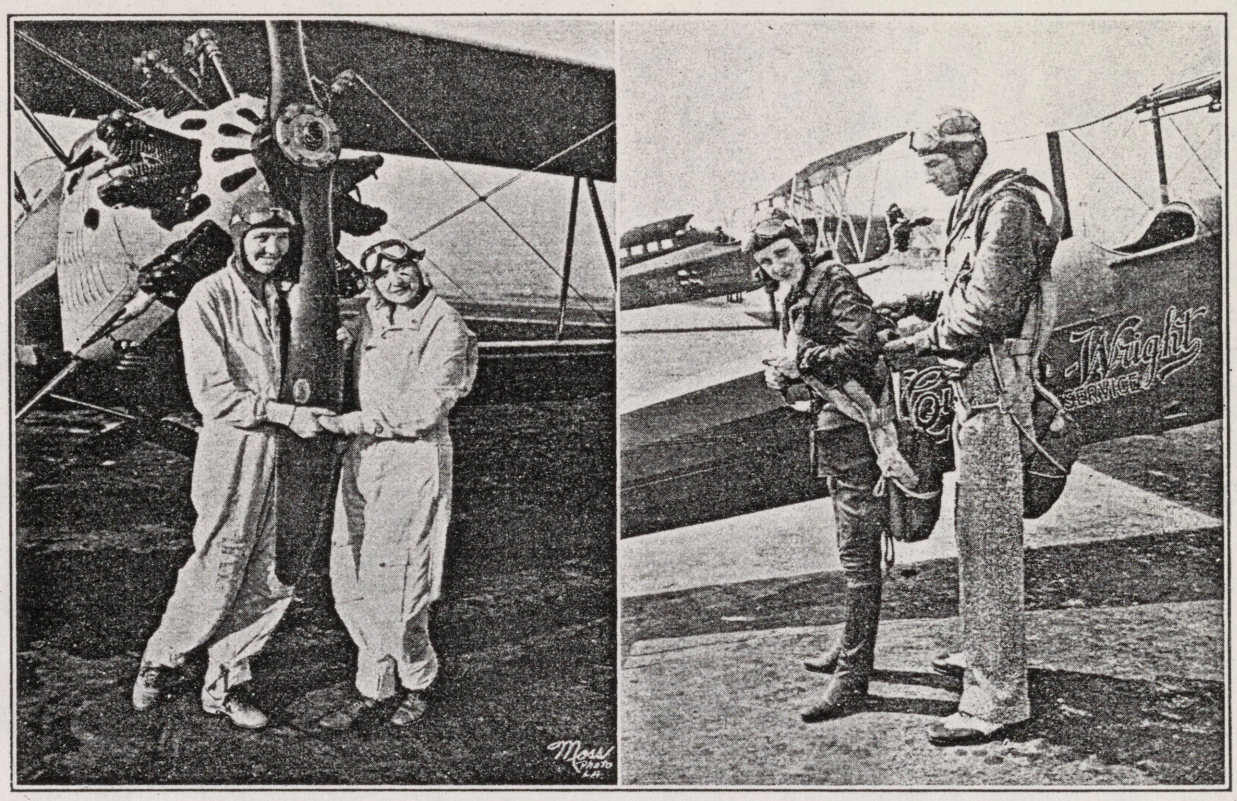
TIME	COMPANY	TO
3:30 A.M.	Transcontinental and Western Air	New York City
7:00 A.M.	Century Pacific	Bakersfield, Fresno, Oakland, San Francisco
9:00 A.M.	Century Pacific	San Diego
9:00 A.M.	Century Pacific	Bakersfield, Fresno, Oakland, San Francisco
10:00 A.M.	Transcontinental and Western Air	San Francisco
10:15 A.M.	Gilpin Air Lines	San Diego
11:00 A.M.	Century Pacific	San Diego
11:00 A.M.	Century Pacific	Bakersfield, Fresno, Oakland, San Francisco
12:00 M.	Century Pacific	San Diego
12:00 M.	Gilpin Air Line	Agua Caliente
1:00 P.M.	Century Pacific	Bakersfield, Fresno, Oakland, San Francisco
3:00 P.M.	Century Pacific	Bakersfield, Fresno, Oakland, San Francisco
3:00 P.M.	Century Pacific	San Diego
3:05 P.M.	Transcontinental and Western Air	New York City
5:00 P.M.	Century Pacific	Bakersfield, Fresno, Oakland, San Francisco
5:00 P.M.	Century Pacific	San Diego
5:15 P.M.	Gilpin Air Lines	San Diego
5:30 P.M.	Transcontinental and Western Air	San Francisco
7:00 P.M.	Century Pacific	San Diego
8:10 P.M.	Century Pacific	Bakersfield, Fresno, Oakland, San Francisco

Learn to Fly Under the Best of Instructors

Pilots Trained by us Are Dependable Fliers

Take Advantage of Our Financial Plan and Get Curtiss-Wright Training

There are opportunities in Aviation for Trained Men and Women



READY FOR ACTION ANYWHERE—THEY ARE REAL PILOTS; YES, REAL ONES

F-L-Y!

Curtiss-Wright Flying Service with its long honorable experience in commercial flying, is unusually well equipped to give flight and mechanical training to those who are entering this fascinating field as a career or to enjoy its exceptional recreational advantages.

Due to the wonderful climate here in Southern California we are permitted to fly the entire year.

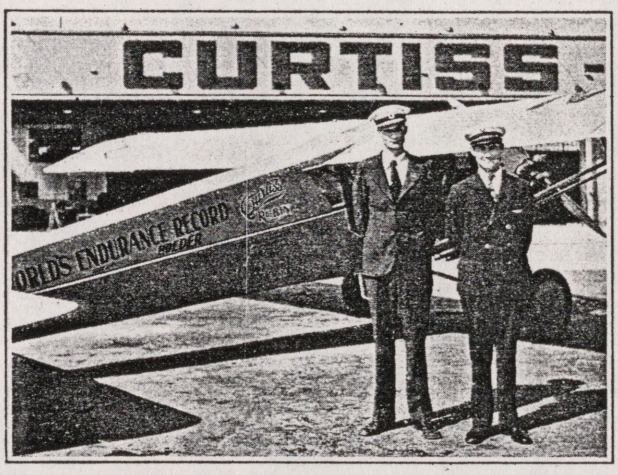
Our mechanics' school courses for those desiring to enter the industry in this phase are given in our laboratory under licensed instructors. All work is practical, no dummy equipment being used.

Private Pilot's Course: includes dual and solo instruction to prepare for the Private Pilot's license, and includes ground school course.

Commercial Pilot's Course: includes all instruction in Private Pilot's Course and additional dual and solo flying, airobatics and cross country flying in both open and cabin planes.

Transport Pilot's Course: prepares for the highest government license which qualifies the pilot for every type of commercial flying.

The above courses are standardized and carry the approval of the United States Department of Commerce for approved schools.



CURTISS-WRIGHT TRAINED PILOTS

Charter Trips

Curtiss-Wright trained pilots are available day and night for charter trips and cross-country passenger trips. This is a service rendered by Curtiss-Wright to points not covered by scheduled airlines, as well as emergency or exclusive trips.

Aviation Mechanics are Necessary the Same as Auto Mechanics

Our Records Demonstrate Curtiss-Wright Men are Dependable

Our Students Are Given Exceptional Instruction

There is a Great Future for Aviation Students

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United States Department of Commerce

Approved Repair Station Certificate

This is to certify that CURTISS-WRIGHT FLYING SERVICE, INC.
Located at GRAND CENTRAL AIR TERMINAL, GLENDALE, CALIF., *is an*

APPROVED AIR STATION

and is authorized to repair licensed aircraft, subject to the provisions and restrictions prescribed by the Air Commerce Regulations pertaining to Approved Repair Stations, and subject to the limitations set forth in the accompanying authorization which is hereby made a part of this Certificate.

Issued JULY 22, 1931

By direction of the Secretary:

CLARENCE W. YOUNG
Assistant Secretary of Commerce

Aircraft and Engine Service Repair Station

It is the policy of the Curtiss-Wright Flying Service to provide the industry with the very best of service fuels, repairs, parts, airplanes, engines, instruments and accessories. Curtiss-Wright not only distributes its own products but those of other manufacturers as well. In view of the nation-wide chain of service and supply stations maintained by Curtiss-Wright, particular pride is taken in supplying the flying public with skilled and careful workmanship and courteous service.

The Service Repair Station at Grant Central is one of the finest in the entire country. The Motor Repair Shop is a model of cleanliness, neatness and proper shop arrangement. The Los Angeles Base is an Approved Repair Station for Curtiss and Wright engines. In the course of engine repair, certain additional features are offered at this shop not ordinarily available, to-wit: Cylinders are sand-blasted and exterior parts of the engine are finished with baked enamel in our ovens.

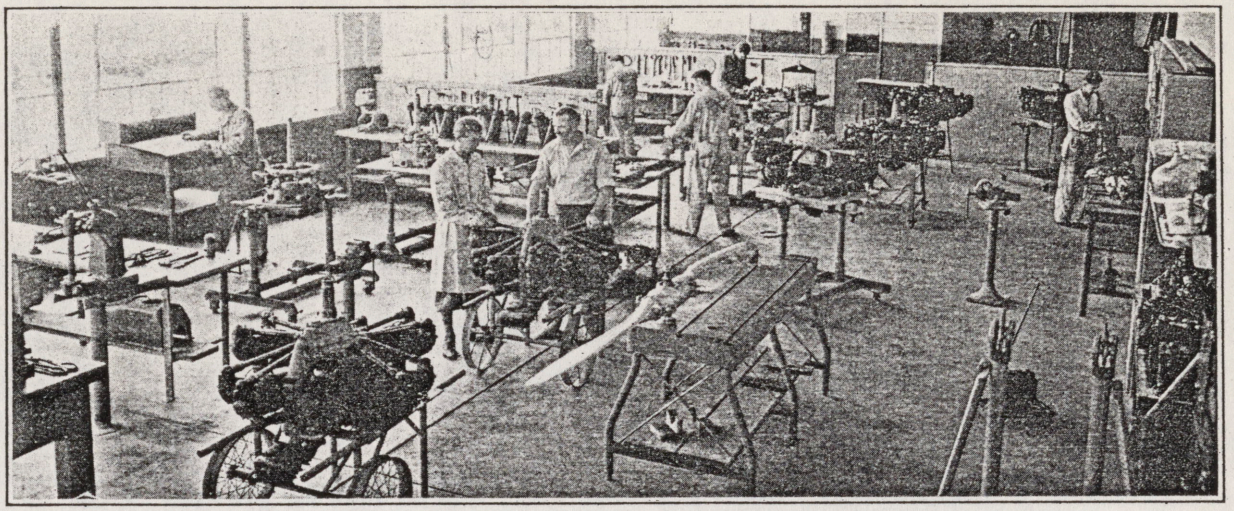
The Service Repair crew, in both hangar and shop, is composed entirely of licensed men with years of experience. Max Cornwell, Service Manager, is recognized as one of the outstanding men of the whole United States in maintenance repair and overhaul, having been with aviation since its beginning and master mechanic in the Army Air Service during the war. Later he was a civilian in charge of maintenance and repair for the Engineering Division of the U. S. Army Air Corps and still later chief mechanic for Western Air Express and later in charge of maintenance for Boeing Air Lines.

Our Service Repair Station is equipped to repair and overhaul all types of engines as well as holding Approved Repair Station Certificate No. 75, issued by the Department of Commerce, authorizing repair of the following classes of aircraft without the necessity of furnishing drawings or other technical data to the Department of Commerce:

Welded steel tubing structure
Wood structure
Fabric covering
Box type and laminated wing spars
Steel fittings
Aluminum alloy fittings
Assembly

We are also distributors for Pioneer Aircraft Instruments and as such conduct an up-to-date Instrument Repair Station.

In conjunction with our service and repair station we have the services of a nationally known aeronautical engineer and we are in a position to furnish complete design for new airplanes, redesign of any part of airplanes, gasoline and oil tanks for long distance flights, etc.



SERVICE DEPARTMENT, GRAND CENTRAL AIR TERMINAL

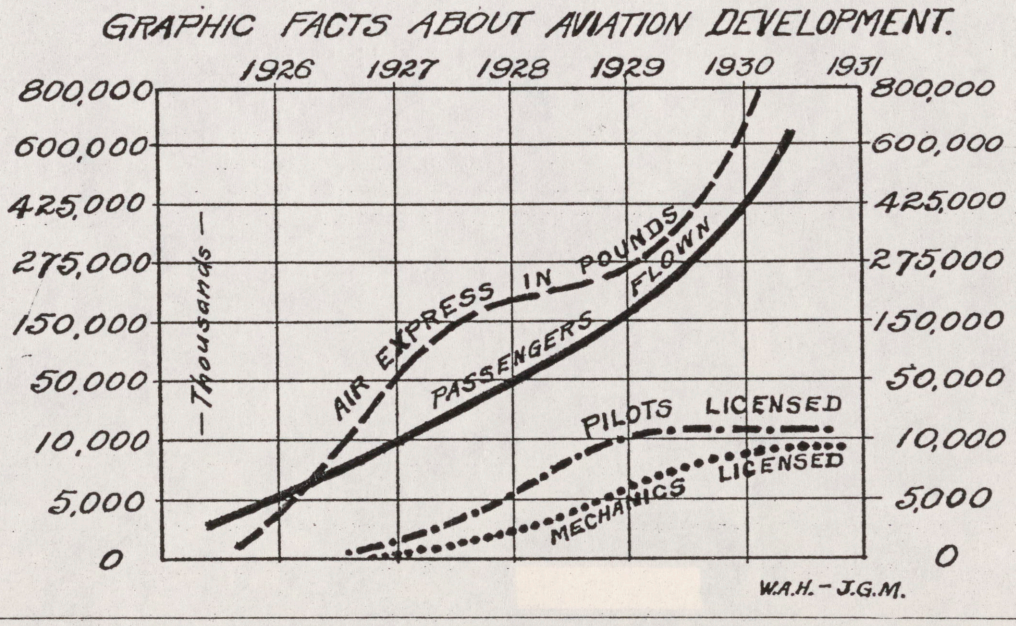
Aircraft Parts and Accessories

Curtiss-Wright Flying Service, through its main offices in New York, purchases in wholesale lots through national contracts its parts and accessories and distributes them to the various bases from a large supply depot in the midwest.

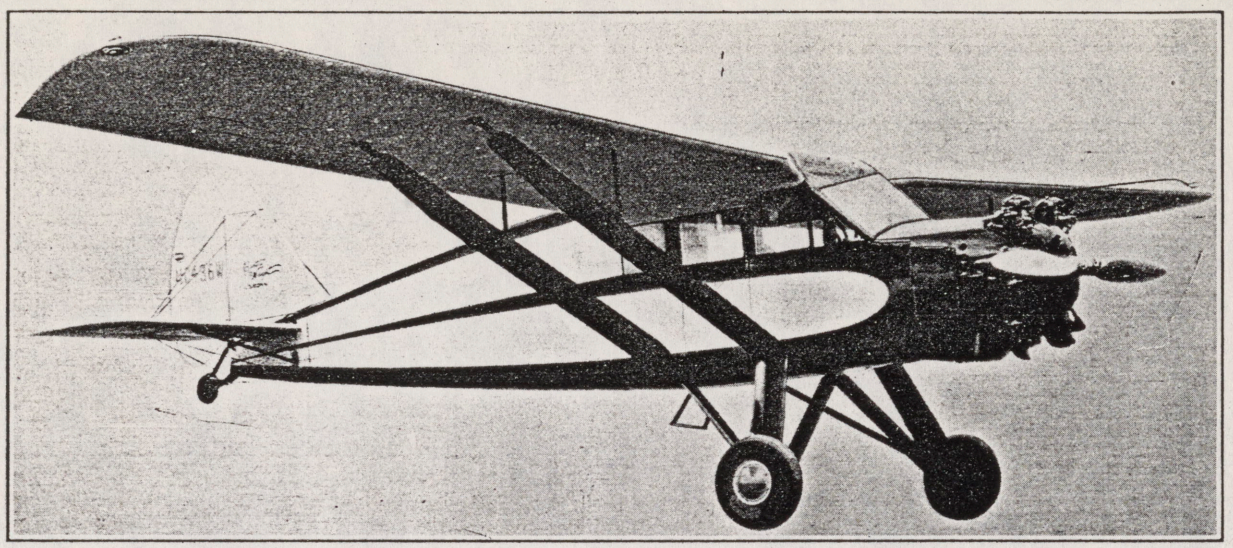
The Curtiss-Wright Base at Grand Central Air Terminal, as one of the national chain of Curtiss-Wright bases, carries a complete line of aircraft accessories, parts and supplies. We are in a position to furnish any and all materials for all aircraft and engines.

The Los Angeles Base has 52 Parts and Accessories dealers under it, covering the entire southwestern part of the United States. Each of the other Curtiss-Wright bases throughout the country also has a large number of sub-dealers. Because of this huge national dealer organization, Curtiss-Wright can supply parts and accessories at unusually attractive prices. If there is anything in aviation that you want, we have it.

For the convenience of the itinerant air traveler, a completely equipped and convenient retail store is operated in the lobby of the passenger depot, carrying an up-to-date line of flying equipment, maps, books, insignia and other articles popular with and necessary to the flying and general public.



The rapidity with which the industry is outgrowing the trained and licensed personnel is already becoming a problem to reckon with and will no doubt create wonderful opportunities for those who are qualified to accept them.



CURTISS-WRIGHT SEDAN

PERFORMANCE

(In these tables the first column refers to Challenger, 185 H.P.; second, Kinner, 200 H.P.; third Whirlwind, 240 H.P.)

Rate of Climb, Feet per Min.	625	700	750
Take-off Run, Feet	640	625	600
High Speed, M.P.H.	115	135	130
Cruising Speed, M.P.H.	95	112	110
Landing Speed, M.P.H.	48	48	48
Cruising Range, Miles	540	580	550

DIMENSIONS

Length	27′6″	27′6″	27′6″
Height	8′10″	8′10″	8′10″
Span	43′3½″	43′3½″	43′3½″
Area, Square Feet	280	280	280
Gas Capacity, Gallons	60	60	60
Oil Capacity, Gallons	5	5	5

GENERAL CHARACTERISTICS

Total Weight Empty, Lbs.	1975	1965	2005
Pilot and Passengers, Lbs.	680	680	680
Fuel and Oil, Lbs.	398	398	398
Baggage and Extras, Lbs.	60	157	117
Total Useful Load, Lbs.	1975	1965	2005
Total Gross Weight, Lbs.	3113	3200	3200
Wing Loading, Lbs. per Square Feet	11.1	11.4	11.4

STANDARD EQUIPMENT

The following items are furnished as standard equipment:

Tachometer, altimeter, oil pressure gauge, oil temperature gauge, air speed indicator, compass, and gasoline gauge. A metal propeller, Eclipse electric starter, internal expanding brakes, roller bearing wheels, dual controls, tail wheel and navigation lights are also standard equipment. On the Whirlwind model, a Townend Ring and a bank and turn indicator are standard in addition to the above named equipment.

Advantages of the CURTISS-WRIGHT CLUB SEDAN—Custom built—four passenger—dual controls—self starter—brakes—limousine luxury—broadcloth upholstery—dome lights—chromium plated appointments—roll-up windows—floor heater—cigar lighter—no uncomfortable flying clothes, helmets, or goggles necessary.

TRAVEL-AIR SPORT TRAINER

(In these tables the first column refers to Gipsy, 90 H.P.; second, Warner, 110 H.P.; and the third to Kinner, 125 H.P.)

PERFORMANCE

Take-off Run, Feet	400	350	350
Rate of Climb, Feet per Min.	600	750	800
High Speed, M.P.H.	103	117	112
Cruising Speed, M.P.H.	88	98	95
Landing Speed, M.P.H.	44	45	45
Cruising Range, Miles	484	490	450

DIMENSIONS

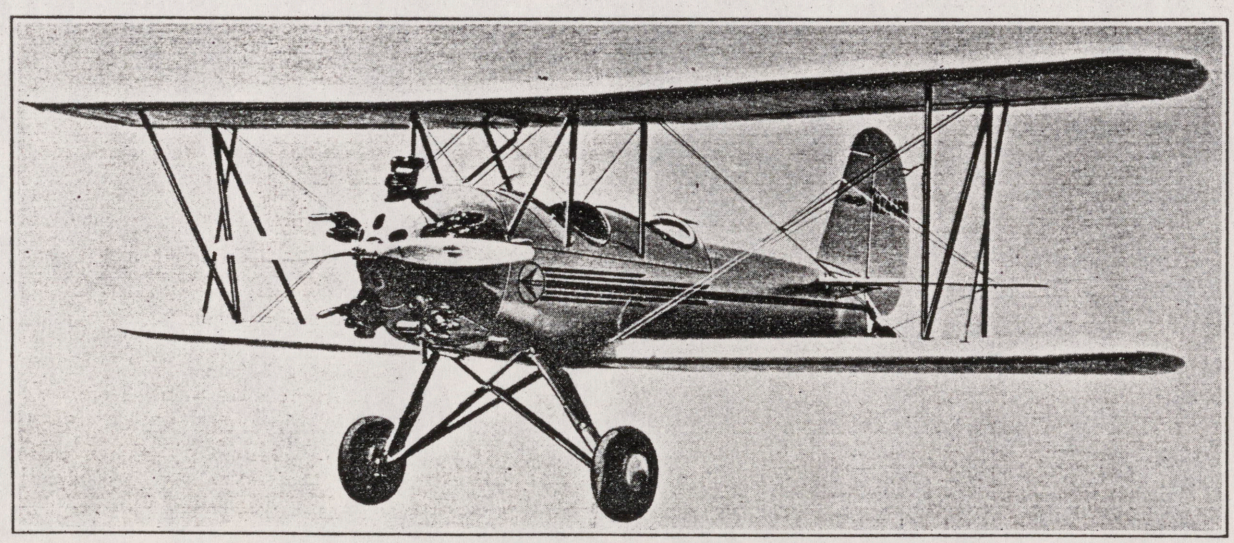
Length	21′5″	20′10″	20′7″
Height	8′10″	8′10″	8′10″
Span	28′10″	28′10″	25′10″
Area, Square Feet	206	206	206
Gas Capacity, Gallons	33	33	33
Oil Capacity, Gallons	2½	3	3

GENERAL CHARACTERISTICS

Total Weight Empty, Lbs.	1071	1186	1164
Pilot and Passengers, Lbs.	340	340	340
Fuel and Oil, Lbs.	216	220	220
Baggage and Extras, Lbs.	98	54	76
Total Useful Load, Lbs.	654	614	636
Total Gross Weight, Lbs.	1725	1800	1800
Wing Loading, Lbs. per Square Feet	8.4	8.6	8.6
Power Loading, Lbs. per H. P.	19.1	16.2	14.3

The following items are furnished as standard equipment:

Altimeter, tachometer, oil temperature gauge, two oil pressure gauges (one front, one rear), air speed indicator, compass, and gasoline gauge. Wheel brakes, roller bearing wheels, dual controls, wiring for navigation lights, fire extinguisher, first aid kit, log book, and tool kit are standard equipment. On the Warner and Kinner models, an Eclipse electric starter, tail wheel, and stream lined head rest are standard equipment. On the Warner model only, a Townend Ring is standard equipment.



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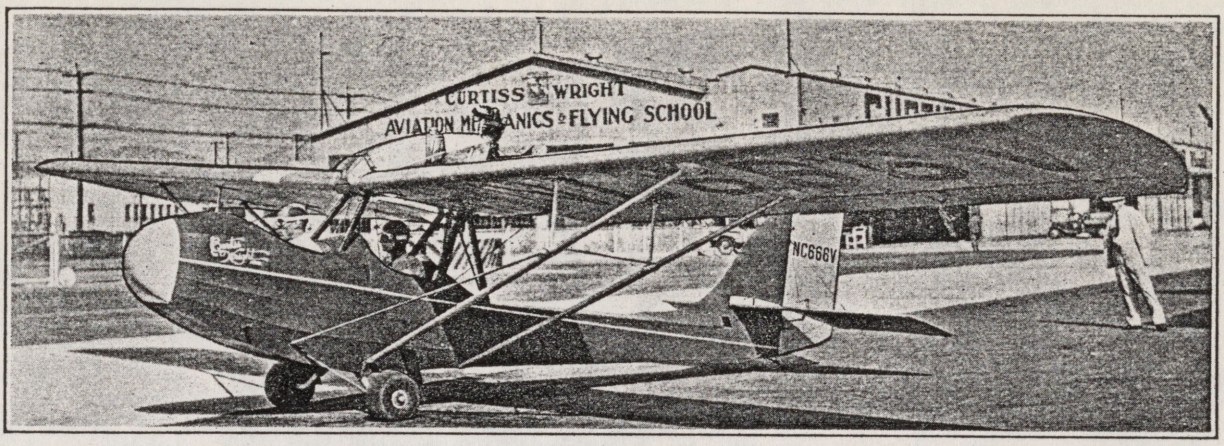

HERE'S A DEPENDABLE PLANE YOU CAN AFFORD TO OWN
CURTISS-WRIGHT JUNIOR

Characteristics

PERFORMANCE
(With Full Load at Sea Level)

Take-off Run	150-200 Feet
Rate of Climb	600 Feet per Minute
High Speed	80 M.P.H.
Cruising Speed	70 M.P.H.
Landing Speed	30 M.P.H.
Cruising Range	200 Miles
Gas Consumption at Cruising Speed	2¾ Gallons per Hour
Gas Mileage at Cruising Speed	25 Miles per Gallon

DIMENSIONS AND AREAS

Length	21′ 3″
Height	7′ 4″
Span	39′ 6″
Wing Area, Square Feet	176
Gasoline Capacity, Gallons	8½
Oil Capacity, Quarts	6

Easy To Buy And Easy To Fly

OTHER CHARACTERISTICS

Total Weight Empty, Lbs.	555
Weight of Crew, Lbs.	340
Weight of Oil and Fuel, Lbs.	63
Baggage and Extras Allowable, Lbs	17
Total Useful Load, Lbs.	420
Total Gross Weight, Lbs.	975
Wing Loading, Lbs. per Sq. Ft.	5.5
Power Loading, Lbs. per H.P.	21.6

POWER PLANT
Three-Cylinder Radial — 45 H.P. Engine

STANDARD EQUIPMENT—Tachometer, altimeter, oil pressure gauge, oil temperature gauge, ignition switch, gasoline gauge, oil gauge, compass, beach type safety meter, fire extinguisher, first aid kit, tool kit, dual controls.

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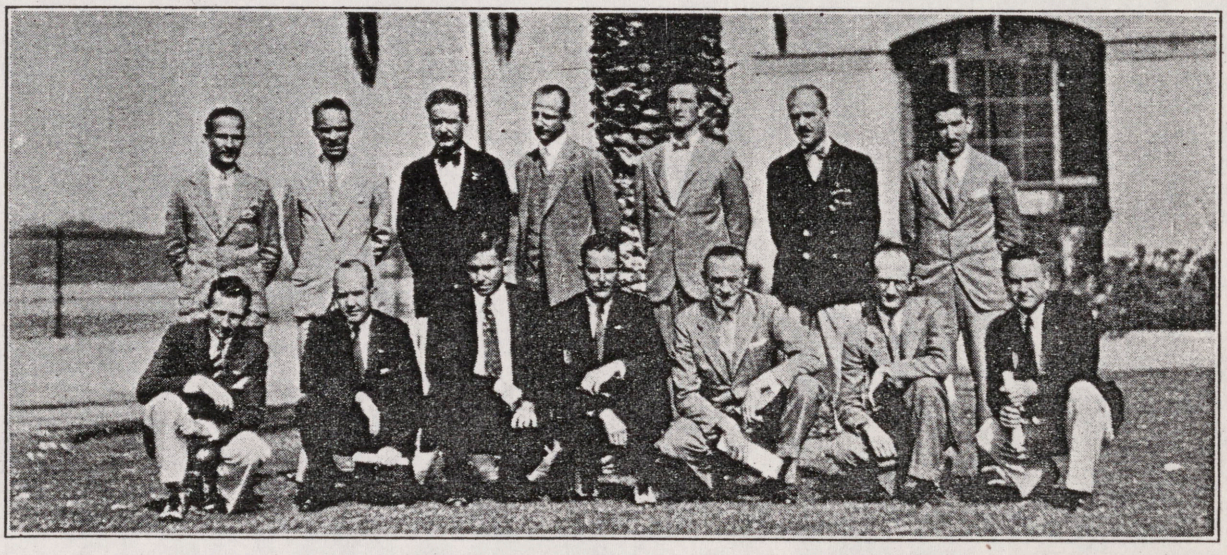

Under the guidance of Sales Manager B. J. BUSCH. This group of Curtiss-Wright trained men are qualified to assist you with your problems, whether it's training, service, or the purchase of an airplane. Let us help you analyze your background and show you how you can start on a successful career in this fast-growing industry.

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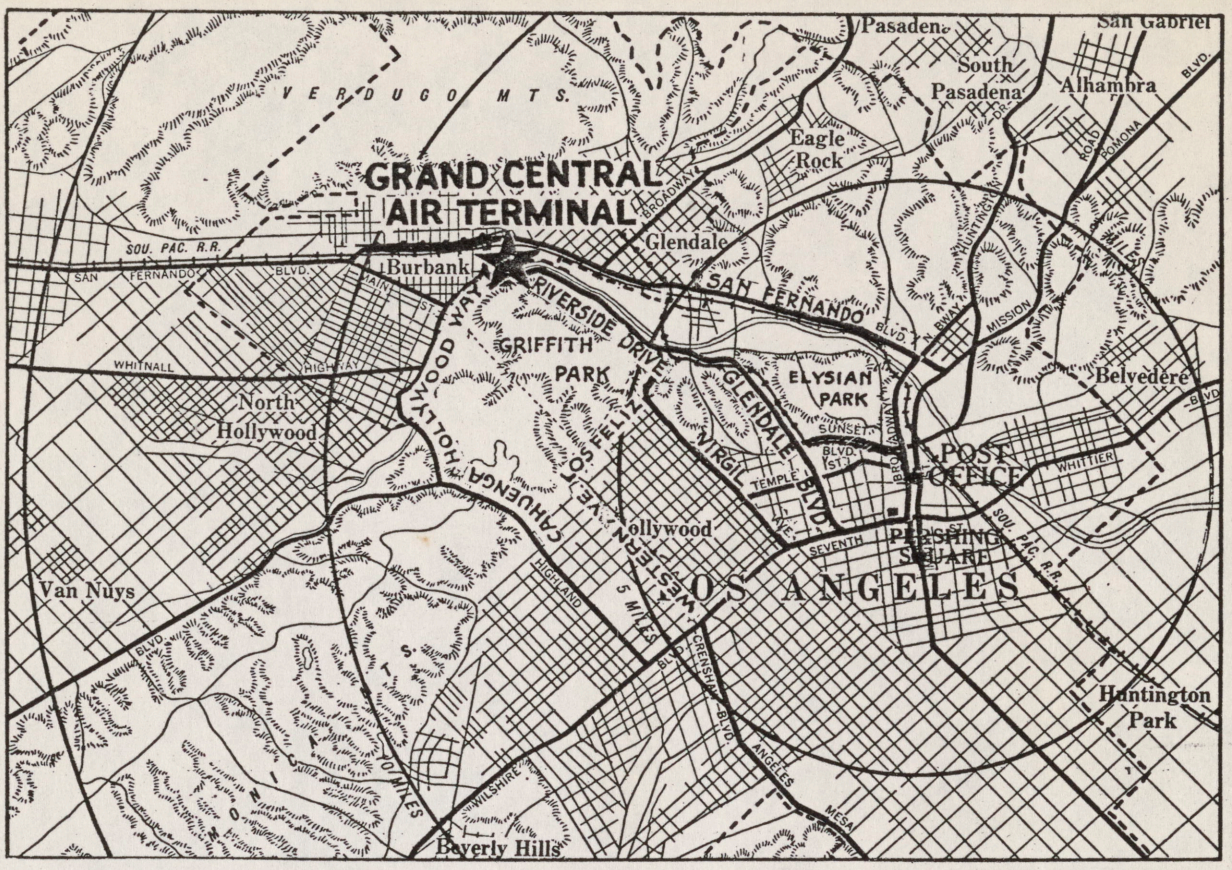

Visit Our Institution and See for Yourself

Once Enrolled—Always a Booster

Blank to be filled out and mailed for further information to Curtiss-Wright Flying Service, Grand Central Air Terminal, Glendale, Los Angeles, California, or better yet come and visit us. Bring your friends.

Name.....Age.....

Address.....City.....State.....
Street

Education.....years.....years
High School College

Trade Experience—kind of work and years.....

.....

Teaching Experience—positions and years.....

.....

Type Credential Held.....Subjects Covered.....

COURSES AVAILABLE—PLEASE CHECK THOSE DESIRED:

Engine Mechanic	Airplane Welding	Private Pilot
Airplane Mechanic	Instrument Specialist	Limited Commercial Pilot
Master Mechanic	Aerial Photography	Transport Pilot
Parachute Rigger	Aeronautical Engineering	Special Flying
	Radio Telephone And Telegraph	

The capacity of this Department is limited, your application should be in at once

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